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P.O. BOX 320850
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EXAMINER

TRAN, QUOC A

ART UNIT	PAPER NUMBER
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2176

MAIL DATE	DELIVERY MODE
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10/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/517,213	Applicant(s) YAMANE, MITOKU	
	Examiner Quoc A. Tran	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. PCT/JP/05469 04/28/2003
& Japan 2002-174185 06/14/2002.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09/11/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is a **Final Office Action** in response to amendments/remarks filed 07/07/2008, which claimed priority of PCT/JP03/05469 04/28/2003 and JAPAN 2002-174185 dated **06/14/2002**. Claims 1-2, 4-5 and 7 are pending; Claim 1 is being independent claim; claims 1-2, 4-5 and 7 are currently amended and claims 3 and 6 are currently canceled (Pacific Ring Services).

Based on the replacement drawing sheets to Figs. 1 and 9 of the amendments paper filed 07/07/2008 the objection to the drawing, objection to the specification and 35 U.S.C. 112, second paragraph, previously set forth is withdrawn.

Information Disclosure Statement

A signed and dated copy of applicant's IDS, which was filed on 09/11/2008 are attached to this Office Action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable by Kang US 20030063070A1, filed 11/02/2001 [hereinafter "Kang"], in view of Swanson US Patent No. 6,541,715 filed 05/24/2001 [hereinafter "Swanson"], further in view of Kushler et al. US006646573B1 filed 12/03/1999 [hereinafter "Kushler"],

Regarding independent claim 1,

Kang teaches:

An electronic apparatus comprising:

First input means having first character-input keys assigned to a matrix configuration wherein said first character-input keys have different vertical and horizontal widths; the longitudinal axes of said first character-input keys being tilted in a top view; said second character-input keys being arranged in a region different from a region where said first character-input keys are arranged,

(See Fig. 2-5 and Para 17, 21 and →Kang discloses this limitation that is keyboards (i.e. the front view of the PDA item 24 in FIG. 5 includes the keyboard 34 in FIG. 4A. The PDA 24 includes a touch sensitive screen 44.) The keyboard 34 in FIG. 5 includes a number of other keys 48, which provided on other handheld electronic devices such as two-way pagers, cellular phones and the like; wherein keyboards 30-34 having different key layouts facilitate access of the keys 4 by sweeping actions of the thumbs. Each row 10, 16 of keys 4 is tilted above a horizontal line 36 through its origin 12 so that each key

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4 in the row 10, 16 is offset by a varying distance H above the horizontal line 36 and so on...)

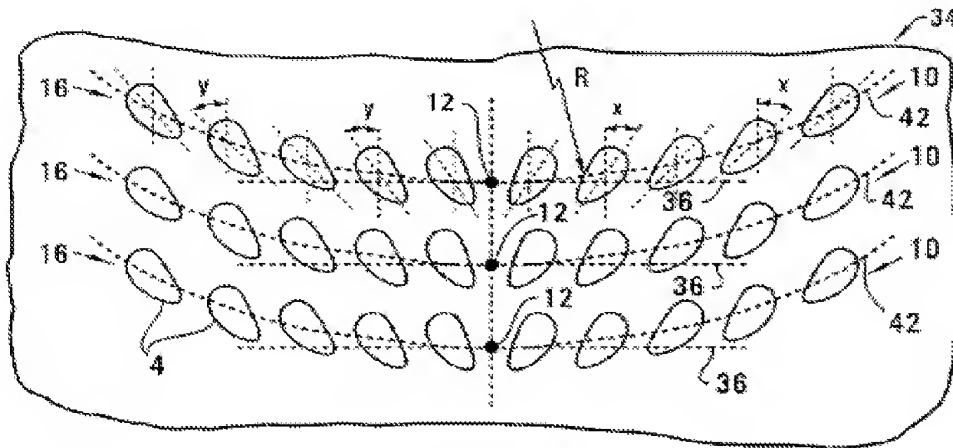


Fig. 4A

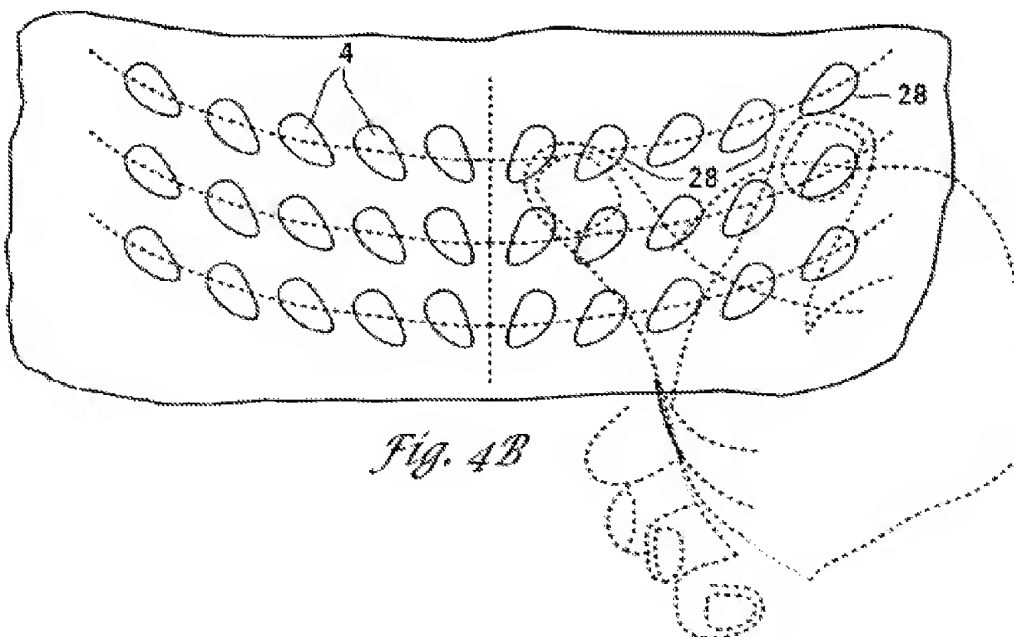


Fig. 4B

display means for displaying the characters input by said first input means and said second input means.

(See Fig. 5 and Para 18 and →Kang discloses this limitation that is keyboards of the front view of the PDA item 24 in FIG. 5 includes the keyboard 34 in FIG. 4A. The PDA 24 includes a touch sensitive screen 44. The keyboard 34 in FIG. 5 includes a number of other keys 48.)

In addition Kang does not expressly teach, but Swanson teaches:

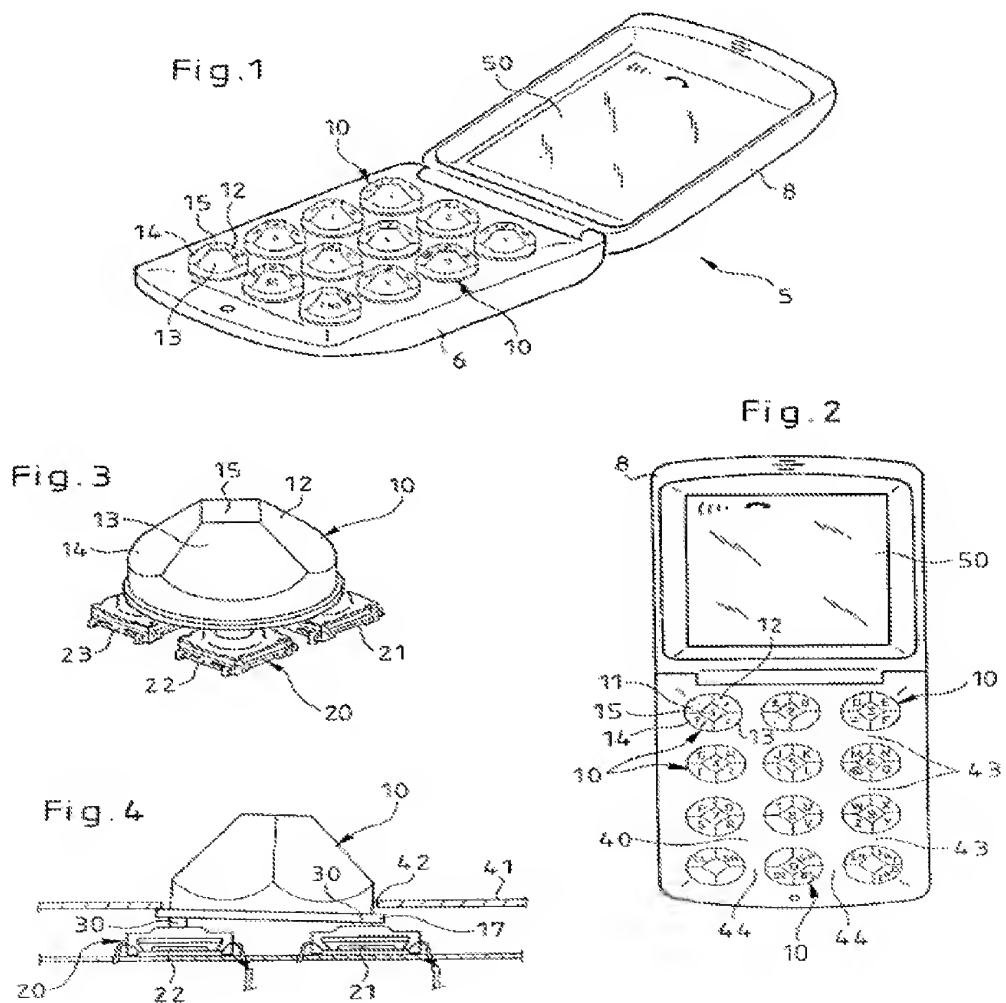
said first character- input keys having first and second contacts to input different characters; said first and second contacts being provided on first and second ends of said first character-input keys in the longitudinal direction;

(See Fig. 1-4 and at Column 2 Lines 1-15→ Swanson discloses this limitation that is a handheld devices includes a the switching means to select a keyboard function (i.e. alphanumeric character or other keyboard function, See Swanson at Column 3, Lines 5-10), when two or more of the micros-witches associated with a particular key member are concurrently actuated. Also Swanson further discloses each key member 10 is biased into a neutral upright position as shown in FIG. 3 and is rockably mounted for movement in four diagonal directions, commonly referred to as "Northwest", "Southwest", "Northeast" and "Southeast", to temporary, unstable positions, such as the one shown in FIG. 4 and at Column 3, Lines 10-15.)

said characters assigned to the center of said first character

input keys being numerals,

(See Fig. 1-4 and at Column 2 Lines 55-65→ Swanson discloses this limitation that is a handheld devices includes said characters assigned to the center of said first character input keys being numerals. This also generally illustrated at Figs 1-4, as shown:



Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang, to include the step of said character- input keys having first and second contacts to input different characters; said first and second contacts being provided on first and second ends of said character-input keys in the longitudinal direction and said characters assigned to the center of said first character input keys being numerals as taught by Swanson for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

In addition Kang and Swanson do not expressly teach, but Kushler teaches:

**said characters assigned to each of said ends of said first
character-input keys being phonetic letters; a second input means
having second character-input keys provided for entering alphabets
expressing Japanese vowels,**

(See Fig. 1B and at Column 21 Lines 20-65→ Kushler discloses this limitation that is a handheld device includes a schematic view of a cellular telephone keypad, similar to FIG. 1b, wherein one or more of the data entry keys are associated with a plurality of

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romaji characters (Latin letters used to phonetically spell the pronunciations of Japanese kana characters), and are labeled with each of the romaji characters associated with the key. An input sequence is generated each time an input is selected by user manipulation of the input device. The generated input sequence has a textual interpretation that is ambiguous due to the plurality of romaji characters associated with one or more of the data entry keys.)

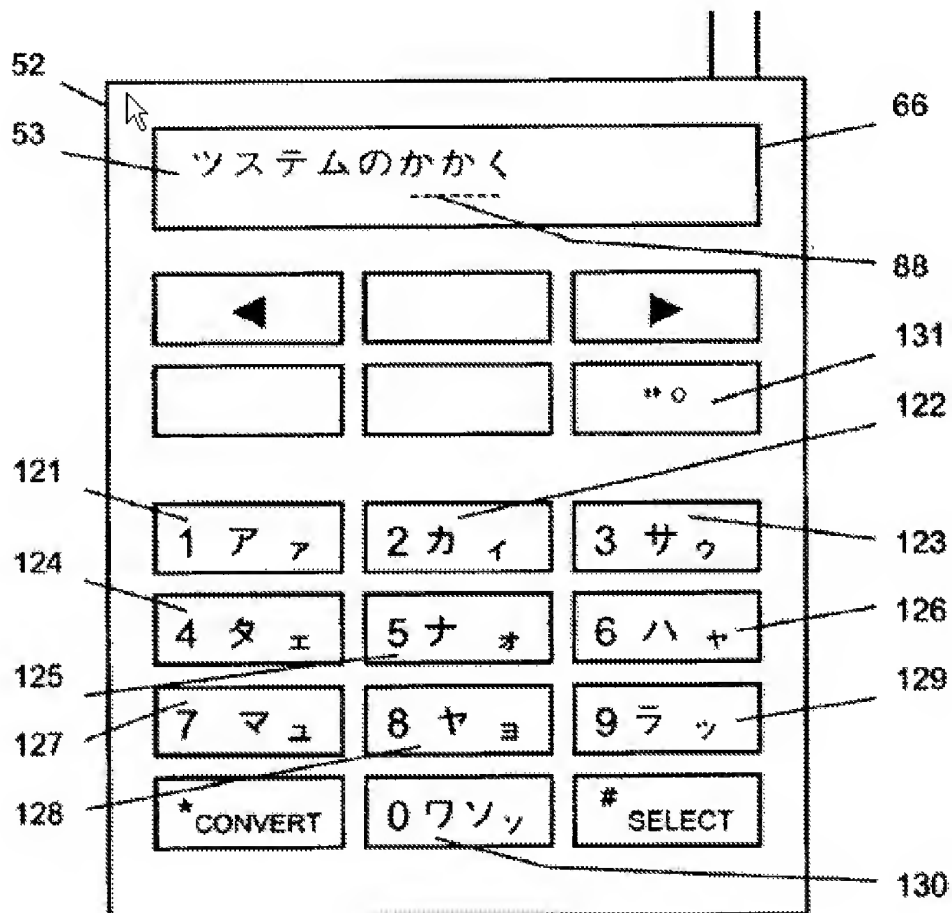


FIG. 1b

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang and Swanson, to include the step of said characters assigned to each of said ends of said first character-input keys being phonetic letters; a second input means having second character-input keys provided for entering alphabets expressing Japanese vowels as taught by Kushner for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Claim 2,

Kang, Swanson and Kushler teach the method of claim 1 and further comprise:

wherein said first character-input keys are arranged in such a manner that the longitudinal axes of said character-input keys is tilted from northeast to southwest;

(See FIG. 4 and at Column 3, Lines 10-15→ Swanson discloses this limitation that character-input keys are rockably mounted for movement in four diagonal directions, commonly referred to as "Northwest", "Southwest", "Northeast" and "Southeast", to

temporary, unstable positions, such as the one shown in FIG. 4 and at Column 3, Lines 10-15.)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang and Kushler, to include the step of said wherein said first character-input keys are arranged in such a manner that the longitudinal axes of said character-input keys is tilted from northeast to southwest as taught by Swanson for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Claim 4,

Kang, Swanson and Kushler teach the method of claim 1 and further comprise:

having a Latin letter--Japanese character conversion means for converting the words expressed by using phonetic letters, which are entered by said first character-input-keys, and said second character-input keys, into Japanese words.

(at Column 3, Lines 5-30→ Kushler describes this limitation that is having a Latin letter-Japanese character conversion means for converting the words expressed by using phonetic letters, which are entered by said character-input keys, into Japanese words.)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang and Swanson, to include the step of said having a Latin letter--Japanese character conversion means for converting the words expressed by using phonetic letters, which are entered by said first character-input-keys, and said second character-input keys, into Japanese words as taught by Kushler for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Claim 5,

Kang, Swanson and Kushler teach the method of claim 1 and further comprise:

**third contacts that are capable of contacting said first contacts and
said second contacts provided on said first and said second ends of said**

first character-input keys; and third characters different from those assigned to said first and second ends are assigned to the center of said first character-input keys wherein said first contacts and said second contacts touch said third contacts, thereby inputting said third characters assigned to the center of said first character-input keys.

(See Fig. 1-4 and at Column 2 Lines 1-15→ Swanson discloses this limitation that is a handheld devices includes a the switching means to select a keyboard function (i.e. alphanumeric character or other keyboard function, See Swanson at Column 3, Lines 5-10), when two or more of the micros-witches associated with a particular key member are concurrently actuated. Also Swanson further discloses each key member 10 is biased into a neutral upright position as shown in FIG. 3 and is rockably mounted for movement in four diagonal directions, commonly referred to as "Northwest", "Southwest", "Northeast" and "Southeast", to temporary, unstable positions, such as the one shown in FIG. 4 and at Column 3, Lines 10-15.)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang and Kushler, to include the step of said third contacts that are capable of contacting said first contacts and said second contacts provided on said first and said second ends of said first character-input keys; and third characters different from those assigned to said first and second ends are assigned to the center of said first character-input keys wherein said first contacts and said second contacts touch said third contacts, thereby inputting said

third characters assigned to the center of said first character-input keys as taught by Swanson for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Claim 7,

Kang, Swanson and Kushler teach the method of claim 1 and further comprise:

wherein said electronic apparatus is of a hand-held type.

(See Fig. 4A and Para 18 →Kang discloses this limitation that is the PDA 24 includes a touch sensitive screen 44 keyboard; wherein keyboards 30-34 having different key layouts facilitate access of the keys 4 by sweeping actions of the thumbs.)

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Response to Arguments

Applicant's arguments with respect to claims 1-2, 4-5 and 7 have been considered but are moot in view of the new ground(s) of rejection.

It is noted; Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action (see above for details).

Further, the examiner introduced the Kushler reference to address the newly amended portions (see above for details).

In addition, it is noted the Examiner maintains the Kang reference; since Kang is related to a keyboard includes a number of other keys, which provided on handheld electronic devices such as two-way pagers, cellular phones and the like; also keyboards having different key layouts facilitate access of the keys by sweeping actions of the thumbs, such as each row of keys is tilted above a horizontal line through its origin so that each key in the row is offset by a varying distance above the horizontal line (keys are displaying in different region (see above for details).

In addition, as discuss above Swanson specifically discloses a handheld devices includes a the switching means to select a keyboard function (i.e. alphanumeric character or other keyboard function, See Swanson at Column 3, Lines 5-10), when two or more of the micros-witches associated with a particular key member are concurrently

actuated. Also Swanson further discloses each key member 10 is biased into a neutral upright position as shown in FIG. 3 and is rockably mounted for movement in four diagonal directions, commonly referred to as "Northwest", "Southwest", "Northeast" and "Southeast", to temporary, unstable positions, such as the one shown in FIG. 4 and at Column 3, Lines 10-15, also See Fig. 1-4 and at Column 2 Lines 1-15. Also Swanson further said characters assigned to the center of said first character input keys being numerals (See Fig. 1-4 and at Column 2 Lines 55-65.)

In addition, to address the new amended portion, as discuss above, Kushler discloses a handheld device includes a schematic view of a cellular telephone keypad, similar to FIG. 1b, wherein one or more of the data entry keys are associated with a plurality of romaji characters (Latin letters used to phonetically spell the pronunciations of Japanese kana characters), and are labeled with each of the romaji characters associated with the key. An input sequence is generated each time an input is selected by user manipulation of the input device. The generated input sequence has a textual interpretation that is ambiguous due to the plurality of romaji characters associated with one or more of the data entry keys. This is generally set forth at Fig. 1B and at Column 21 Lines 20-65 of Kushler.

In addition, "What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103." KSR Int'l Co. v. Teleflex, Inc., 127 S. Ct. 1727, 1742 (2007). To be nonobvious, an improvement must be "more than the

predictable use of prior art elements according to their established functions." Id. at 1740. In this case, the Examiner's analysis Kang is directed keyboard includes a number of other keys, which provided on handheld electronic devices such as two-way pagers, cellular phones and the like; also keyboards having different key layouts facilitate access of the keys by sweeping actions of the thumbs, such as each row of keys is tilted above a horizontal line through its origin so that each key in the row is offset by a varying distance above the horizontal line (see above for details).

As recognized by the Examiner, Kang does not teach the use of first and second contacts to input different characters; said first and second contacts being provided on first and second ends of said first character-input keys in the longitudinal direction; said characters assigned to the center of said first character input keys being numerals, said characters assigned to the center of said first character input keys being numerals. On the other hand, in what is fairly characterized as analogous art in accordance with the above-noted case law, Swanson teaches a handheld devices includes a the switching means to select a keyboard function (i.e. alphanumeric character or other keyboard function, See Swanson at Column 3, Lines 5-10), when two or more of the micro-switches associated with a particular key member are concurrently actuated. Also Swanson further discloses each key member 10 is biased into a neutral upright position as shown in FIG. 3 and is rockably mounted for movement in four diagonal directions, commonly referred to as "Northwest", "Southwest", "Northeast" and "Southeast", to temporary, unstable positions, such as the one shown in FIG. 4 and at Column 3, Lines 10-15, also See Fig. 1-4 and at Column 2 Lines 1-15. Also Swanson further said

characters assigned to the center of said first character input keys being numerals (See Fig. 1-4 and at Column 2 Lines 55-65.) And Kushler discloses a handheld device includes a schematic view of a cellular telephone keypad, similar to FIG. 1b, wherein one or more of the data entry keys are associated with a plurality of romaji characters (Latin letters used to phonetically spell the pronunciations of Japanese kana characters), and are labeled with each of the romaji characters associated with the key. An input sequence is generated each time an input is selected by user manipulation of the input device. The generated input sequence has a textual interpretation that is ambiguous due to the plurality of romaji characters associated with one or more of the data entry keys. This is generally set forth at Fig. 1B and at Column 21 Lines 20-65 of Kushler.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method, disclosed in Kang and Swanson and Kushler for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Thus, Kang and Swanson and Kushler clearly disclose a cell phone includes the character-input phonetic or Latin letters are assigned to the first end- and second end- and numerical in the center. Also these character-input keys are tilted in the longitudinal direction, as recited in claims 1-2, 4-5 and 7 and provided proper reasons to combine.

Therefore the Examiner respectfully maintains the rejection of claims 1-2, 4-5 and 7 at least at this time.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc A. Tran whose telephone number is 571-272-8664. The examiner can normally be reached on Mon through Fri 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on (571)272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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